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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,582	03/31/2004	R. David Arnold	07844-636001 / P589	8418

21876 7590 03/06/2007  
FISH & RICHARDSON P.C.  
P.O. Box 1022  
MINNEAPOLIS, MN 55440-1022

EXAMINER
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CHOW, JEFFREY J

ART UNIT	PAPER NUMBER
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2628

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/06/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/816,582	<b>Applicant(s)</b> ARNOLD ET AL.	
	<b>Examiner</b> Jeffrey J. Chow	<b>Art Unit</b> 2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 and 25-34 is/are allowed.
- 6) ☒ Claim(s) 11-24, 35 and 36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 February 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Terminal Disclaimer***

The terminal disclaimer filed on 05 February 2007 disclaiming the terminal portion of any patent granted on this application has been reviewed and is accepted. The terminal disclaimer has been recorded.

### ***Response to Arguments***

Applicant's arguments filed 05 February 2007 have been fully considered but they are not persuasive.

The drawing and specification rejections have been withdrawn due to applicant's amendments.

The claim objection has been withdrawn due to applicant's arguments.

Regarding claims 13 – 23, the 35 U.S.C. 101 rejections have not been withdrawn since it is still non-statutory.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 13 – 23 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 13 – 23 are directed to nonfunctional descriptive material, which is not a statutory process, machine, manufacture or composition of matter. Computer program product does not have any functional interrelationship. Nonfunctional

Art Unit: 2628

material may be claimed in combination with other functional descriptive multi-media material on a computer-readable medium to provide the necessary functional and structural interrelationship. A computer that recognizes a computer program product defines a functional interrelationship among the computer program product and the computer process performed when utilizing the computer program product, and as such is statutory because it implements a statutory process. Please see 101 Interim Guidelines pages 54 and 55.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11, 12, 23, 24, 35, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arnold (US 5,929,866) in view of Dowling (US 5,943,063).

Regarding independent claim 11, Arnold discloses creating a density map for the character to be rendered (column 4, lines 10 – 37), which reads on the claimed receiving a plurality of glyphs to be rendered. Arnold discloses a scaled stem width and where the scaled stem width is used in an equation to adjust the density values of the character (column 6, lines 29 – 64), which reads on the claimed for each glyph, before rasterizing a representation of the glyph, using a scaled stem width of the glyph to select a rendering policy for rendering the glyph. Arnold did not expressly disclose the rendering policy comprises a plurality of parameters for rendering the glyph including a hinting policy, although Arnold does disclose an equation that

Art Unit: 2628

uses different parameters and obtain an index value to decide what density value to adjust (column 6, lines 50 – 64 and Figure 6). Dowling discloses the start of the program receives character pointer, size, number of greyscales, and policy (column 6, line 63 – column 7, line 7) and in those policy demonstrates a hinting policy (Figures 9A – 9D and 10A – 10D). It would have been obvious for one of ordinary skill in the art at the time of the invention to improve Arnold's system by applying a hinting policy at certain adjust density values in the table given in Figure 4. One would be motivated to do so because this would helps the renderer rebalance the stems. The improvement in Arnold's system would be to apply a certain re-rendering policy with hints to the adjusted density value of "16" by hinting adjacent pixels next to the pixel value with an adjust density value of "16". Hinting policy can be applied to any other adjusted density value besides "16".

Regarding dependent claim 12, Arnold discloses each device pixel corresponds to one density element (column 5, lines 14 and 15), which reads on the claimed rendered glyph is represented by a plurality of device pixels. Arnold discloses a scaled stem width and where the scaled stem width is used in an equation to adjust the density values of the character (column 6, lines 29 – 64), which reads on the claimed selected rendering policy includes an initial adjustment value for adjusting density values of one or more of the plurality of device pixels.

Regarding claims 23, 24, 35, and 36, claims 23, 24, 35, and 36 are similar in scope as to claims 11 and 12, thus the rejections for claims 11 and 12 hereinabove is applicable to claims 23, 24, 35, and 36.

*Allowable Subject Matter*

Claims 1 – 10 and 25 – 34 are allowed.

The following is an examiner's statement of reasons for allowance: adjusting density values of a pixel based on an initial adjustment value and a length of an edge of a stroke passing through that pixel is not disclosed or rendered obvious by the cited prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee.

Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

*Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Art Unit: 2628

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey J. Chow whose telephone number is (571)-272-8078. The examiner can normally be reached on Monday - Friday 10:00AM - 5:00PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ulka Chauhan can be reached on (571)-272-7782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JJC

  
ULKA CHAUHAN  
SUPERVISORY PATENT EXAMINER